WHAT IS CLAIMED IS:

1.   An interdomain routing system wherein a node, comprising:

own intradomain path selection means for selecting a path by exchanging information about a path in the own domain;

interdomain path selection means for receiving information about a path between domains to select a path;

destination domain reception path candidate obtaining means for requesting a destination node for obtaining a group of candidate paths from the node in question toward the destination node; and

end-to-end path selection means;

wherein said end-to-end path selection means selecting an optimum path end to end based on paths in the domain of the node in question, interdomain paths from the domain in question to the destination domain and paths in the domain of the destination node.

2.   The interdomain routing system as set forth in claim 1, wherein

said own intradomain path selection means includes means for exchanging topology of a network in a domain and link resource information such as a bandwidth metric and a QoS metric of a link.

3.   The interdomain routing system as set forth in claim 1, wherein

said interdomain path selection means includes means for exchanging topology of a network between

5   domains and link resource information such as a bandwidth metric and a QoS metric of a link.

4.   The interdomain routing system as set forth in claim 1, wherein

said own intradomain path selection means includes means for exchanging topology of a network in a

5   domain and link resource information such as a bandwidth metric and a QoS metric of a link, and

said interdomain path selection means includes means for exchanging topology of a network between domains and link resource information such as a

10   bandwidth metric and a QoS metric of a link.

5.   The interdomain routing system as set forth in claim 1, wherein

said interdomain path selection means is provided at an external node other than a transmission node or a

5   destination node, so that said transmission node or said destination node obtains path information by inquiring of the interdomain path selection means existing in the other external node.

6.   The interdomain routing system as set forth in claim 1, wherein

as a transmission node, an arbitrary node for relay is selected as a transmission proxy node and as a destination node, an arbitrary node for relay is selected as a destination proxy node.

7.   An interdomain routing system wherein a node, comprising:

own intradomain path selection means for selecting a path by exchanging information about a path in the own domain;

interdomain path selection means for receiving information about a path between domains to select a path; and

domain reception path candidate reply means responsive to a request from a transmission node for returning, as a reply, a group of candidate paths from the transmission node toward the node in question.

8.   The interdomain routing system as set forth in claim 7, wherein

said own intradomain path selection means includes means for exchanging topology of a network in a domain and link resource information such as a bandwidth metric and a QoS metric of a link.

9.   The interdomain routing system as set forth in
claim 7, wherein

        said interdomain path selection means includes
means for exchanging topology of a network between

5   domains and link resource information such as a
bandwidth metric and a QoS metric of a link.

10.   The interdomain routing system as set forth in
claim 7, wherein

        said own intradomain path selection means
includes means for exchanging topology of a network in a

5   domain and link resource information such as a bandwidth
metric and a QoS metric of a link, and

        said interdomain path selection means includes
means for exchanging topology of a network between

domains and link resource information such as a

10   bandwidth metric and a QoS metric of a link.

11.   The interdomain routing system as set forth in
claim 7, wherein

        said interdomain path selection means is provided
at an external node other than a transmission node or a

5   destination node, so that said transmission node or said
destination node obtains path information by inquiring
of the interdomain path selection means existing in the
other external node.

12.   The interdomain routing system as set forth in
claim 7, wherein

as a transmission node, an arbitrary node for
relay is selected as a transmission proxy node and as a
5   destination node, an arbitrary node for relay is
selected as a destination proxy node.

13.   An interdomain routing system having a
transmission node and a destination node, wherein
said transmission node including
own intradomain path selection means for
5   selecting a path by exchanging information about a path
in the own domain,
interdomain path selection means for receiving
information about a path between domains to select a
path,
10   destination domain reception path candidate
obtaining means for requesting a destination node for
obtaining a group of candidate paths from the
transmission node toward the destination node, and
end-to-end path selection means for selecting an
15   optimum path end to end based on paths in the domain of
the transmission node, interdomain paths from the
transmission domain to the destination domain and paths
in the domain of the destination node, and
said destination node including

own intradomain path selection means for

selecting a path by exchanging information about a path

in a domain,

interdomain path selection means for receiving

information about a path between domains to select a

path, and

destination domain reception path candidate reply

means responsive to a request from the transmission node

for returning, as a reply, a group of candidate paths

from the transmission node toward the destination node.

14.   The interdomain routing system as set forth in

claim 13, wherein

said own intradomain path selection means

includes means for exchanging topology of a network in a

domain and link resource information such as a bandwidth

metric and a QoS metric of a link.

15.   The interdomain routing system as set forth in

claim 13, wherein

said interdomain path selection means includes

means for exchanging topology of a network between

domains and link resource information such as a

bandwidth metric and a QoS metric of a link.

16.   The interdomain routing system as set forth in

claim 13, wherein

said own intradomain path selection means includes means for exchanging topology of a network in a

5   domain and link resource information such as a bandwidth metric and a QoS metric of a link, and

said interdomain path selection means includes means for exchanging topology of a network between domains and link resource information such as a

10   bandwidth metric and a QoS metric of a link.

17.   The interdomain routing system as set forth in claim 13, wherein

said interdomain path selection means is provided at an external node other than a transmission node or a

5   destination node, so that said transmission node or said destination node obtains path information by inquiring of the interdomain path selection means existing in the other external node.

18.   The interdomain routing system as set forth in claim 13, wherein

as a transmission node, an arbitrary node for relay is selected as a transmission proxy node and as a

5   destination node, an arbitrary node for relay is selected as a destination proxy node.

19.   An interdomain routing system having a node, wherin

said node comprising

own intradomain path selection means for
selecting a path by exchanging information about a path
in the own domain,

interdomain path selection means for receiving
information about a path between domains to select a
path,

destination domain transmission path candidate
obtaining means for requesting a destination node for
obtaining a group of candidate paths from the
destination node toward the node in question, and

end-to-end path selection means, said end-to-end
path selection means selecting an optimum path end to
end based on paths in the domain of the destination node,
interdomain paths from the destination domain to the
domain in question and paths in the domain of the node
in question.

20.   The interdomain routing system as set forth in
claim 19, wherein

said destination domain path candidate obtaining
means has a function of obtaining, as a group of
candidate paths from a destination node toward a
transmission node, both of paths in the destination
domain and interdomain paths from the destination domain
to the transmission domain.

21.   The interdomain routing system as set forth in claim 19, wherein

said own intradomain path selection means includes means for exchanging topology of a network in a domain and link resource information such as a bandwidth metric and a QoS metric of a link.

22.   The interdomain routing system as set forth in claim 19, wherein

said interdomain path selection means includes means for exchanging topology of a network between domains and link resource information such as a bandwidth metric and a QoS metric of a link.

23.   The interdomain routing system as set forth in claim 19, wherein

said intradomain path selection means includes means for exchanging topology of a network in a domain and link resource information such as a bandwidth metric and a QoS metric of a link, and

said interdomain path selection means includes means for exchanging topology of a network between domains and link resource information such as a bandwidth metric and a QoS metric of a link.

24.   The interdomain routing system as set forth in claim 19, wherein

said interdomain path selection means is provided at an external node other than a transmission node or a destination node, so that said transmission node or said destination node obtains path information by inquiring of the interdomain path selection means existing in the other external node.

25.   The interdomain routing system as set forth in claim 19, wherein

as a transmission node, an arbitrary node for relay is selected as a transmission proxy node and as a destination node, an arbitrary node for relay is selected as a destination proxy node.

26.   An interdomain routing system having a node, wherein

said node comoprising:

own intradomain path selection means for selecting a path by exchanging information about a path in the own domain,

interdomain path selection means for receiving information about a path between domains to select a path, and

domain transmission path candidate reply means responsive to a request from a transmission node for returning, as a reply, a group of candidate paths from the node in question toward the transmission node.

27. The interdomain routing system as set forth in claim 26, wherein

said destination domain path candidate obtaining means has a function of obtaining, as a group of candidate paths from a destination node toward a transmission node, both of paths in the destination domain and interdomain paths from the destination domain to the transmission domain.

28. The interdomain routing system as set forth in claim 26, wherein

said own intradomain path selection means includes means for exchanging topology of a network in a domain and link resource information such as a bandwidth metric and a QoS metric of a link.

29. The interdomain routing system as set forth in claim 26, wherein

said interdomain path selection means includes means for exchanging topology of a network between domains and link resource information such as a bandwidth metric and a QoS metric of a link.

30. The interdomain routing system as set forth in claim 26, wherein

said intradomain path selection means includes

means for exchanging topology of a network in a domain

and link resource information such as a bandwidth metric

and a QoS metric of a link, and

said interdomain path selection means includes

means for exchanging topology of a network between

domains and link resource information such as a

bandwidth metric and a QoS metric of a link.

31.   The interdomain routing system as set forth in

claim 26, wherein

said interdomain path selection means is provided

at an external node other than a transmission node or a

destination node, so that said transmission node or said

destination node obtains path information by inquiring

of the interdomain path selection means existing in the

other external node.

32.   The interdomain routing system as set forth in

claim 26, wherein

as a transmission node, an arbitrary node for

relay is selected as a transmission proxy node and as a

destination node, an arbitrary node for relay is

selected as a destination proxy node.

33.   An interdomain routing system having a

transmission node and a destination node, wherein

said transmission node including

own intradomain path selection means for selecting a path by exchanging information about a path in the own domain,

interdomain path selection means for receiving information about a path between domains to select a path,

destination domain transmission path candidate obtaining means for requesting a destination node for obtaining a group of candidate paths from the destination node toward the transmission node, and

end-to-end path selection means for selecting an optimum path end to end based on paths in the domain of the destination node, interdomain paths from the destination domain to the transmission domain and paths in the domain of the transmission node, and

said destination node including

own intradomain path selection means for selecting a path by exchanging information about a path in a domain,

interdomain path selection means for receiving information about a path between domains to select a path, and

destination domain transmission path candidate reply means responsive to a request from the transmission node for returning, as a reply, a group of candidate paths from the destination node toward the transmission node.

34.   The interdomain routing system as set forth in claim 33, wherein

said destination domain path candidate obtaining means has a function of obtaining, as a group of candidate paths from a destination node toward a transmission node, both of paths in the destination domain and interdomain paths from the destination domain to the transmission domain.

35.   The interdomain routing system as set forth in claim 33, wherein

said own intradomain path selection means includes means for exchanging topology of a network in a domain and link resource information such as a bandwidth metric and a QoS metric of a link.

36.   The interdomain routing system as set forth in claim 33, wherein

said interdomain path selection means includes means for exchanging topology of a network between domains and link resource information such as a bandwidth metric and a QoS metric of a link.

37.   The interdomain routing system as set forth in claim 33, wherein

said intradomain path selection means includes

means for exchanging topology of a network in a domain
and link resource information such as a bandwidth metric
and a QoS metric of a link, and

said interdomain path selection means includes
means for exchanging topology of a network between
domains and link resource information such as a
bandwidth metric and a QoS metric of a link.

38.   The interdomain routing system as set forth in
claim 33, wherein

said interdomain path selection means is provided
at an external node other than a transmission node or a
destination node, so that said transmission node or said
destination node obtains path information by inquiring
of the interdomain path selection means existing in the
other external node.

39.   The interdomain routing system as set forth in
claim 33, wherein

as a transmission node, an arbitrary node for
relay is selected as a transmission proxy node and as a
destination node, an arbitrary node for relay is
selected as a destination proxy node.

40.   An interdomain routing system having a node,
wherin

said node comprising

own intradomain path selection means for

5   selecting a path by exchanging information about a path

in the own domain,

interdomain path selection means for receiving

information about a path between domains to select a

path,

10   destination domain transmission path candidate

obtaining means for inquiring of a plurality of

destination node candidates about service object

transfer to obtain a group of candidate paths from each

of the destination node candidates toward the node in

15   question and a processing load of a service node which

conducts the service object processing in question, and

service node path selection means for selecting

an optimum service node and end-to-end path by making a

comparison of end-to-end path costs based on a

20   processing load of each service node, paths in the

domain of the destination node, interdomain paths from

the destination domain to the transmission domain and

paths in the domain of the transmission node.

41.   The interdomain routing system as set forth in

claim 40, wherein

said own intradomain path selection means

includes means for exchanging topology of a network in a

5   domain and link resource information such as a bandwidth

metric and a QoS metric of a link.

42.   The interdomain routing system as set forth in claim 40, wherein

said interdomain path selection means includes means for exchanging topology of a network between domains and link resource information such as a bandwidth metric and a QoS metric of a link.

43.   The interdomain routing system as set forth in claim 40, wherein

said own intradomain path selection means includes means for exchanging topology of a network in a domain and link resource information such as a bandwidth metric and a QoS metric of a link, and

said interdomain path selection means includes means for exchanging topology of a network between domains and link resource information such as a bandwidth metric and a QoS metric of a link.

44.   The interdomain routing system as set forth in claim 40, wherein

said interdomain path selection means is provided at an external node other than a transmission node or a destination node, so that said transmission node or said destination node obtains path information by inquiring of the interdomain path selection means existing in the other external node.

45.   The interdomain routing system as set forth in claim 40, wherein

as a transmission node, an arbitrary node for relay is selected as a transmission proxy node and as a destination node, an arbitrary node for relay is selected as a destination proxy node.

46.   The interdomain routing system as set forth in claim 40, wherein

as a service node processing load, a network load at the communication of service results is used in addition to a CPU load of service processing.

47.   The interdomain routing system as set forth in claim 40, wherein

as a service object, a URL is used and as said service node, a Web server is used.

48.   An interdomain routing system having a node, wherin

said node comprising

own intradomain path selection means for selecting a path by exchanging information about a path in the own domain,

interdomain path selection means for receiving information about a path between domains to select a

path,

a service node load monitoring procedure for monitoring a processing load of a service node, and

destination domain transmission path candidate reply means responsive to a request from a transmission node for returning a group of candidate paths from the node in question toward the transmission node and a service node load as a reply.

49.   The interdomain routing system as set forth in claim 48, wherein

said own intradomain path selection means includes means for exchanging topology of a network in a domain and link resource information such as a bandwidth metric and a QoS metric of a link.

50.   The interdomain routing system as set forth in claim 48, wherein

said interdomain path selection means includes means for exchanging topology of a network between domains and link resource information such as a bandwidth metric and a QoS metric of a link.

51.   The interdomain routing system as set forth in claim 48, wherein

said own intradomain path selection means includes means for exchanging topology of a network in a

domain and link resource information such as a bandwidth

metric and a QoS metric of a link, and

said interdomain path selection means includes

means for exchanging topology of a network between

domains and link resource information such as a

bandwidth metric and a QoS metric of a link.

52.   The interdomain routing system as set forth in

claim 48, wherein

said interdomain path selection means is provided

at an external node other than a transmission node or a

destination node, so that said transmission node or said

destination node obtains path information by inquiring

of the interdomain path selection means existing in the

other external node.

53.   The interdomain routing system as set forth in

claim 48, wherein

as a transmission node, an arbitrary node for

relay is selected as a transmission proxy node and as a

destination node, an arbitrary node for relay is

selected as a destination proxy node.

54.   The interdomain routing system as set forth in

claim 48, wherein

a destination node has address resolution request

means to select any of a plurality of transmission nodes

by an address resolution server function.

55.   The interdomain routing system as set forth in
claim 54, wherein

said destination node sets up a session with
selected said transmission node and said selected
transmission node notifies said destination node of an
address of other transmission node as required to switch
the session.

56.   The interdomain routing system as set forth in
claim 48, wherein

as a service node processing load, a network load
at the communication of service results is used in
addition to a CPU load of service processing.

57.   The interdomain routing system as set forth in
claim 48, wherein

as a service object, a URL is used and as said
service node, a Web server is used.

58.   An interdomain routing system having a
transmission node and a destination node, wherein

said transmission node including

own intradomain path selection means for
selecting a path by exchanging information about a path
in the own domain,

interdomain path selection means for receiving information about a path between domains to select a path,

10   destination domain transmission path candidate obtaining means for inquiring of a plurality of destination node candidates about service object transfer to obtain a group of candidate paths from each of the destination node candidates toward the node in

15   question and a processing load of a service node which conducts the service object processing in question, and

service node path selection means for selecting an optimum service node and end-to-end path by making a comparison of end-to-end path costs based on a

20   processing load of each service node, paths in the domain of the destination node, interdomain paths from the destination domain to the transmission domain and paths in the domain of the transmission node, and

said destination node including

25   own intradomain path selection means for selecting a path by exchanging information about a path in the own domain,

interdomain path selection means for receiving information about a path between domains to select a

30   path,

a service node load monitoring procedure for monitoring a processing load of a service node, and

destination domain transmission path candidate

reply means responsive to a request from a transmission

35   node for returning a group of candidate paths from the

node in question toward the transmission node and a

service node load as a reply.

59.   The interdomain routing system as set forth in

claim 58, wherein

said own intradomain path selection means

includes means for exchanging topology of a network in a

5   domain and link resource information such as a bandwidth

metric and a QoS metric of a link.

60.   The interdomain routing system as set forth in

claim 58, wherein

said interdomain path selection means includes

means for exchanging topology of a network between

5   domains and link resource information such as a

bandwidth metric and a QoS metric of a link.

61.   The interdomain routing system as set forth in

claim 58, wherein

said own intradomain path selection means

includes means for exchanging topology of a network in a

5   domain and link resource information such as a bandwidth

metric and a QoS metric of a link, and

said interdomain path selection means includes

means for exchanging topology of a network between

domains and link resource information such as a

10   bandwidth metric and a QoS metric of a link.

62.   The interdomain routing system as set forth in
claim 58, wherein

said interdomain path selection means is provided
at an external node other than a transmission node or a
5   destination node, so that said transmission node or said
destination node obtains path information by inquiring
of the interdomain path selection means existing in the
other external node.

63.   The interdomain routing system as set forth in
claim 58, wherein

as a transmission node, an arbitrary node for
relay is selected as a transmission proxy node and as a
5   destination node, an arbitrary node for relay is
selected as a destination proxy node.

64.   The interdomain routing system as set forth in
claim 58, wherein

as a service node processing load, a network load
at the communication of service results is used in
5   addition to a CPU load of service processing.

65.   The interdomain routing system as set forth in
claim 58, wherein

as a service object, a URL is used and as said
service node, a Web server is used.

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